AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application

Claims 1-29 (Cancelled)

30. (New) An apparatus comprising:

a first compartment including an endothermic hydrogen generator; and

a second compartment inside the first compartment, the second compartment including an exothermic hydrogen generator to absorb heat from the exothermic hydrogen generator.

31. (New) The apparatus of claim 30, further comprising:

a substance enclosing the second compartment having a high heat conductance; and

a substance enclosing the first compartment having a low thermal conductivity.

32. (New) The apparatus of claim 30, further comprising a conductive fin extending into either the first compartment, the second compartment, or both the first and the second compartments.

33. (New) The apparatus of claim 30, further comprising a tube filled with a heat conducting liquid extending into the first compartment, the second compartment, or both the first and the second compartments.

34. (New) The apparatus of claim 30, further comprising:

a fuel cell designed to operate at near ambient temperature coupled to the endothermic and the exothermic hydrogen generators to receive hydrogen from the generators, and to generate electrical power; and

a portable electronic device coupled to the fuel cell to receive the electrical power.

35. (New) An apparatus comprising:

a first compartment including a first hydrogen generator; and

a second compartment coupled with the first compartment, the second compartment including a second hydrogen generator.

36. (New) The apparatus of claim 35:

wherein the first hydrogen generator comprises an endothermic hydrogen generator; and

wherein the second hydrogen generator comprises an exothermic hydrogen generator to absorb heat from the exothermic hydrogen generator.

37. (New) The apparatus of claim 36, wherein the second compartment is inside the first compartment.

38. (New) The apparatus of claim 37, wherein the exothermic hydrogen generator comprises an exothermic hydrogen generator that is selected from the group consisting of a borohydride solution exposed to a catalyst, a solid lithium aluminum tetrahydride, a hydride exposed to water, a partial oxidation hydrocarbon reformer, and combinations thereof.

39. (New) The apparatus of claim 38, wherein the exothermic hydrogen generator comprises a borohydride solution exposed to a catalyst.

40. (New) The apparatus of claim 37, wherein the endothermic hydrogen generator comprises an endothermic hydrogen generator that is selected from the group consisting of one or more metal hydrides, one or more metal alloy hydrides, a carbon nanotube system, a

compressed hydrogen gas, a liquid hydrogen, a steam hydrocarbon reformer, and combinations thereof.

41. (New) The apparatus of claim 40, wherein the endothermic hydrogen generator comprises one or more metal hydrides.

42. (New) The apparatus of claim 36:

wherein the exothermic hydrogen generator comprises an aqueous solution of sodium borohydride and a catalyst; and

wherein the endothermic hydrogen generator comprises one or more metal hydrides.

43. (New) The apparatus of claim 36, wherein heat released by the exothermic hydrogen generator is approximately balanced by heat absorbed by the endothermic hydrogen generator.

44. (New) The apparatus of claim 37, further comprising a substance enclosing the second compartment having a high heat conductance.

45. (New) The apparatus of claim 44, wherein the substance is selected from the group consisting of aluminum and copper.

46. (New) The apparatus of claim 44, further comprising a substance enclosing the first compartment having a low thermal conductivity.

47. (New) The apparatus of claim 36, further comprising a conductive fin extending into either the first compartment, the second compartment, or both the first and the second compartments.

48. (New) The apparatus of claim 36, further comprising a tube filled with a heat conducting liquid extending through the first compartment, the second compartment, or both the first and the second compartments.

49. (New) The apparatus of claim 48, further comprising a projection attached to the tube to increase the efficiency of heat transfer.

50. (New) The apparatus of claim 36, further comprising:

a first port connected to the first compartment; and

a second port connected to the second compartment.

51. (New) The apparatus of claim 50, further comprising a filter of the first port.

52. (New) The apparatus of claim 51, wherein the filter comprises a porous material that is selected from the group consisting of porous metal and porous polytetrafluoroethylene.

53. (New) The apparatus of claim 36, further comprising an electrical heater to heat the endothermic hydrogen generator.

54. (New) The apparatus of claim 36, wherein the hydrogen generators are reversible.

55. (New) The apparatus of claim 35, further comprising a fuel cell coupled to the endothermic and the exothermic hydrogen generators.

56. (New) The apparatus of claim 55, wherein the fuel cell comprises an exothermic fuel cell that is thermally coupled with the endothermic hydrogen generator to provide heat to the endothermic hydrogen generator.

57. (New) The apparatus of claim 55, further comprising a portable electronic device coupled to the fuel cell.

58. (New) An apparatus comprising:

a first compartment including a first hydrogen generator; and

a second compartment coupled with the first compartment, the second compartment including a second hydrogen generator;

a fuel cell designed to operate at near ambient temperature coupled to the first and the second hydrogen generators to receive hydrogen from the generators, and to generate electrical power; and

a portable electronic device coupled to the fuel cell to receive the electrical power.

59. (New) The apparatus of claim 58:

wherein the first hydrogen generator comprises an endothermic hydrogen generator; and

wherein the second hydrogen generator comprises an exothermic hydrogen generator to absorb heat from the exothermic hydrogen generator.

60. (New) The apparatus of claim 59, wherein the second compartment is inside the first compartment.